PROCEEDINGS OF THE

BIOLOGICAL SOCIETY OF WASHINGTON

THE SYSTEMATIC POSITION OF THE MARMOSET, SIMIA LEONINA HUMBOLDT (PRIMATES)

By Philip Hershkovitz
Curator of Mammals, Chicago Natural History Museum

It had been generally supposed by most authors, including the writer (1949:424), that Simia leonina Humboldt was a golden-maned marmoset related to, if not identical with, Simia rosalia Linnaeus. As Humboldt's marmoset is type of Leontocebus Wagner (1840:ix, 248), this generic name was used for the golden-maned, or little lion, monkeys. Cabrera (1956:49) has now shown conclusively that Simia leonina is really a member of the group of hairy-faced marmosets, better known as tamarins, characterized by a white circumlabial band. He therefore replaced Tamarin Gray with Leontocebus as the generic name for the hairy-faced forms. Because of priority, Leontocebus was also used to embrace the bare-faced marmosets of the recognized subgenera Marikina Lesson and Oedipomidas Reichenbach. In the absence of another available generic name Cabrera proposed Leontideus, with type Simia rosalia Linnaeus, for the true little lion monkeys. Except for the changes in technical names, the classification of marmosets adopted by Cabrera follows my arrangement of 1949 (pp. 409 et seq.). The exact characters of Simia leonina Humboldt and its relationship to other hairy-faced marmosets, however, still requires elucidation.

At hand is a series of 16 specimens of hairy-faced tamarins collected by the writer in 1952 between the Ríos Caquetá and Putumayo, Southeastern Colombia. This is the type region of Simia leonina Humboldt. Except for the very different pygmy marmoset, Cebuella pygmaea, no other member of the family Callithrichidae occurs in the area. Discounting vagaries of the original description of Simia leonina and liberties taken by the artist in depicting an animal he never saw, the present series exhibits all positive diagnostic characters of Humboldt's monkey. The head of the type of Simia leonina is described as "nigrescens" (Humboldt, 1805:31). In the 16 specimens at hand, the head, including

3—Proc. Biol. Soc. Wash., Vol. 70, 1957

MAR 1 5 1857

18

face and crown, is black. The mantle and hind limbs of the series are buffy finely ticked with black in conformity with the original description and colored plate of the type (op. cit., pl. 5). In the colored figure, however, the head is also buff, in contradiction to the text. The tail of the figure is likewise uniformly pale brown but the text describes it as "superne atra, inferne badia." In the series, the tail agrees with the text in being blackish above and brownish beneath for from one-third to two-thirds its length. The back, in Humboldt's description, in the stylized figure, and in the series, is striated, or marbled, blackish and pale buff ("dorsum maculis et striis albo-flavescentibus variegatum''). The underparts of the series are brown as in the figure. In the text the underparts are understood as included in the "corpus ex badio olivaceum." Head and body length of Simia leonina, estimated from the living animal, no doubt an immature, is given as 7 or 8 French inches, i.e., from 190 to 217 centimeters. Means and extremes of the external measurements of the 16 specimens at hand are: head and body combined, 225(212-234): tail, 348(296-383); hind foot, with claw, 71(64-77), ear, from notch, 28(26-31).

Thus, the status of Simia leonina Humboldt as a tamarin of the black headed, red-mantled group (cf. Hershkovitz, 1949:412-413, II-D) is confirmed by present topotypes, the first to be recorded since the original description. Humboldt's marmoset, therefore, is most nearly related to Leontocebus illigeri Pucheran from the Amazon in extreme southeastern Colombia. In the latter, however, the mantle is dark reddish with the individual hairs uniformly colored except for their dark bases. This tonal color difference between illigeri and Simia leonina may be of less than specific grade, but pending a revision of the marmosets, the two are kept apart.

It is of interest to note that in his analysis, Cabrera (1956:51) compared Humboldt's description of Simia leonina with the colored figure of a marmoset identified by Cruz Lima (1945: pl. 38, fig. 1) as "Tamarin nigrifrons nigrifrons." Actually, the figure appears to have been depicted from a specimen of Leontocebus illigeri with the reddish haired skin of the nape pulled up over the crown. The figure of Tamarin [=Leontocebus] lagonotus² in the same work (pl. 36, fig. 2) shows the black head with the reddish mantle, arms and thighs characteristic of the Simia leonina—illigeri group.

The name Simia leonina Humboldt dates from the first edition of the Recueil d'Observations de Zoologie et d'Anatomie comparée, published in 1805. The same name was used by Shaw in 1800, for a species of macaque. The next available binomial for Humboldt's marmoset is Leontopithecus fuscus Lesson (1842:9). This then becomes Leontocebus (Leontocebus) fuscus Lesson, with type, the original description and figure of Simia leonina Humboldt. Leontopithecus Lesson, falls in the synonymy of Leontocebus Wagner.

The type of nigrifrons I. Geoffroy, is a black mantled, brown crowned tamarin of unknown locality. It is probably identical with Leontocebus fuscicollis Spix. Unfortunately, the marmoset figured by Cruz Lima (1945:pl. 38, fig. 3b) as "Tamarin fuscicollis" should have been labelled Tarmarin [=Leontocebus] weddelli. The characters of true fuscicollis Spix are shown in the figure identified by Cruz Lima (1945:pl. 36, fig. 1) as "Tamarin nigricollis." 24 synonym of illigeri but possibly valid as a subspecies.

LITERATURE CITED

- Cabrera, Angel, 1956. Sobre la identificación de Simia leonina Humboldt (Mammalia, Primates). Neotropica, 2: 49-53.
- Cruz Lima, Eladio da. 1944. Mamiferos da Amazonia, 1: Introducão geral e Primatas. Mus. Paraense Emilio Goeldi Hist. Nat. Etnogr., 274 pp., 44 pls. (col.).
- Hershkovitz, Philip. 1949. Mammals of northern Colombia. Preliminary report no. 4: Monkeys (Primates), with taxonomic revisions of some forms. Proc. U. S. Nat. Mus., 98: 323-427, figs. 52-59, pls. 15-17.
- Humboldt, Alexandre de and Bonpland, A. 1805. Recueil d'Observations de Zoologie et d'Anatomie comparée . . . '' Paris, 412 pp., 27 pls.
- Lesson, Réné-Primeverre. 1840. Species de mammifères: Bimanes et quadrumanes; Suivi dun mémoire sur les Oryctéropes. Paris, xvi + 292 pp.
- Wagner, Johann Andreas. 1840. Die Säugthiere in Abbildungen noch der Natur. Suppl., 1: xvi + 551. Erlangen.